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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,831	09/07/2004	Selim Ben-Yedder	FR 020016	8921
24737 7590 02/06/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER LEE, KWOK W	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 02/06/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/506,831

Applicant(s)

BEN-YEDDER ET AL.

Examiner

KWOK W. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/7/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because "means" and "said" language are used in the abstract. Correction is required. See MPEP § 608.01(b).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1-4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,210,140 in view of Jordan (US 6,094,528). Claim 1 of 7,210,140 involves the step of suspending the translation of virtual machine instructions to perform another task and then resuming the translation. The Jordan reference teaches saving state information of a virtual machine, while interpreting, such that it can resume operation from where it last ended in the event of an interruption (Column 6, lines 15-22). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have stored state information pertaining to an interpreter so that it can be suspended to perform another task and then resumed from where it last left off so that the interpretation process will not have to be repeated from the start (Jordan, column 5, lines 50-60).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-4 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The device in claims 1-3 is non-statutory subject matter because there is not enough evidence in the specification to support that this "device", term used by the

applicant, is hardware-based. The "device", according to page 1, can be interpreted as simply a virtual machine. A virtual machine pertains to software and software per se is non-statutory subject matter because it is not a "process, machine, manufacture, or composition of matter".

There is also not enough evidence in the specification to make the apparatus of claim 4 material and therefore the apparatus can be construed to a virtual machine executing another virtual machine. A virtual machine is non-statutory subject matter for the same reason as explained above regarding claims 1-3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Krishnaswamy (US 6,308,318).

With respect to claim 1, Krishnaswamy teaches a device for accelerating the interpretation of a program in interpreted language, said program comprising an intermediate code which can be executed by a virtual machine in the form of successive tasks (Column 4, line 63-column 5, line 10 and figure 2, showing translation of input code object into native code by Interpreter 27 in figure 3), said device comprising routing means able to extract a current intermediate code from a memory in order to

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load it into storage means, characterized in that the routing means are able to inhibit the extraction of the current intermediate code and to load into the storage means (Column 7, lines 10-22 and column 7, lines 40-44, a GAR point enables state information of currently translated code to be saved to a location) a reserved intermediate code (Column 2, lines 45-55) intended to effect a saving of a context of the virtual machine, during a request for a change of task (Column 7, lines 10-25, a context switch from code interpretation to handle an asynchronous exception or event).

With respect to claim 3, Krishnaswamy teaches that the routing means comprise an interrupt register (Column 2, lines 60-65) able to be activated during a request for a change of task so that the reserved intermediate code is loaded into the storage means (Column 7, lines 10-25).

With respect to claim 4, see above regarding claim 1 or 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnaswamy (US 6,308,318) in view of Jordan (US 6,094,528).

All of the above limitations regarding claim 1 has been addressed above.

Krishnaswamy does not teach that the routing means (13) comprise a routing counter

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(21) initialized to a predetermined value corresponding to the number of current intermediate codes to be processed between two successive changes of task and decremented whenever a current intermediate code is extracted from the memory (17), the reserved intermediate code being loaded into the storage means (16) when the routing counter (21) has the value zero. The Jordan reference teaches saving state information of virtual machines during the interruption of interpretation (Column 6, lines 15-22) and where bytecodes to be executed are stored in arrays indexed by a program counter, according to each module they belong to (Column 9, lines 57-64). Therefore, bytecode that are removed from execution would result in an incremental change of the counter such that the next bytecode or interrupted bytecode is executed. It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have added a program counter to Krishnaswamy's system in a way such that intermediate codes to be processed are stored in arrays and indexed by a counter to keep track of which codes are to be executed if any remain and in what order.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Yates et al. (US 5,802,373) shows taking a snap-shot of a current state of an interpreter during execution (Column 24, lines 22-35).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KWOK W. LEE whose telephone number is (571)270-


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3557. The examiner can normally be reached on Mon - Thu and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis A. Bullock, Jr. can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. W. L./
Examiner, Art Unit 2195


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER